

Patent Docket: D2702  
Serial No. 09/922,325

**SPECIFICATION AMENDMENTS:**

[0032] The use of thin film batteries in the present invention offers a number of advantages over the use of conventional batteries. In particular, thin film batteries have long cycle lives, with thousands of charge-discharge cycles per life. They also exhibit long shelf lives, often with little or no measurable change in their parameters even after years of storage. Thin film batteries operate over a wide temperature range; thus, thin film batteries have been shown to perform reliably in temperature cycle tests carried out between 25°C to 100°C, and both lithium-ion and lithium-free thin film batteries can be heated to 250°C prior to initial charging with no discernable change in performance. Thin film batteries are also rechargeable, and therefore do not have to be any larger than the size required to supply the requisite power and energy for a single duty cycle. Thin film batteries may also be charged at high current densities, resulting in short recharge times. While the recharge time depends strongly on the resistance of the battery and its capacity, thin film batteries having  $\text{LiCoO}_2$  cathodes have been made which recharge to greater than 90% capacity in only 6 minutes. Other attributes of thin film batteries, as well as thin film battery designs and methods for making them, are described, for example, in U.S. 5,314,765 (Bates), U.S. 5,445,906 (Hobson et al.), U.S. 5,569,520 (Bates), and U.S. 5,705,293 (Hobson), and at <http://www.ssd.ornl.gov/Programs/batteryWeb/index.htm>.